

WATERFOWL TOMORROW - U.S. Dept. Interior, Bureau of Sport Fisheries
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Excerpted from "Spent Shot and Lead Poisoning"

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Each year tens of thousands of ducks and geese fall victim to spent shot, a loss that borders on wanton waste. It is a consequence of hunting, and we can do something about it.

Waterfowl get lead poisoning by swallowing lead shot that they pick up on the bottoms of lakes and marshes. The average hunter fires 5 shots for every duck he bags. A 12-gauge shell contains about 280 pellets of number-6 shot. Accordingly, as many as 1,400 pellets may be deposited on waterfowl hunting grounds for every duck killed.

Because most blinds on any body of water are on the best waterfowl feeding grounds, shot pellets fall in greatest numbers in the very places the birds are most attracted to feed. Shooting tends to keep waterfowl away from them when hunters are in the blinds, but when hunting is over, these feeding grounds can be death traps.

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Shot pellets resemble the seeds of numerous plants, especially the pondweeds. This seems to explain why birds ingest them and why the birds that feed most actively on the bottom pick up the most shot. During the fall and early winter, young ducks eat more than adults do and they swallow more lead. Drakes consume more food than hens, and they, likewise, ingest more lead.

Lead shot is retained in the gizzard for varying periods. The grinding action of the gizzard on the shot and dissolution by digestive juices reduce its size. As lead is eroded from the surface of the pellet, soluble lead salts pass into the digestive tract. The first toxic symptom is a lessening of food intake, as the gizzard is partly paralyzed.

In most waterfowl, the malfunction of the gizzard leads to starvation. Birds lose their appetite and eat little, or the ingested food is not digested. The glandular stomachs of birds that continue to take in food become greatly distended and impacted. Fowl that have starved to death because of lead poisoning weigh about half of normal. In 3 or 4 weeks the birds either die or begin to recover. Occasionally, waterfowl ingest such large numbers of shot pellets that a highly acute form of lead poisoning occurs; blood, kidney, and liver tissues are severely damaged, and birds die in 1 to 2 weeks.

---Frank C. Bellrose, Jr.